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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

October 27, 1999

Mr. Thomas Sugrue, Chief
Wireless Telecommunications Bureau
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, DC 20554

Re: Request for Approval to Include Digital Modes Within Call Completion Methods

Dear Mr. Sugrue:

Pursuant to the *Second Report and Order* in the Enhanced 911 Emergency Calling Systems Proceeding, CC Docket No. 94-102,[1] Nokia Inc. ("Nokia") hereby requests that the Wireless Telecommunications Bureau ("WTB") approve a call completion methodology for Nokia's multi-mode products that includes utilizing the digital and the analog modes.

In the *Second Notice of Proposed Rulemaking* the Commission sought ways to enable mobile users to complete emergency 911 calls without regard to the availability of the system or technology used by their wireless service.[2] In its *Second Report and Order*, however, the Commission adopted rules applicable only to the analog modes. In doing so, the Commission explicitly stated that its intent is not to limit the development and improvement of 911 call completion modes so long as alternatives meet the following five principles: (1) improve the 911 call completion rate so far as practicable, including in circumstances when the caller's preferred carrier in unable to complete a call that can be completed by another carrier; (2) recognize the desirability to complete the call, where possible, by the subscribed cellular carrier; (3) not disrupt overall operation of 911 service, including the networks of both wireless carriers and public

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[1] *Revision of the Commission's Rules to Ensure Compatibility With Enhanced 911 Emergency Calling Systems,* Second Report and Order (rel. June 9, 1999) (*"Second Report and Order"*).

[2] *See, Id.* at ¶ 13; Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd. 18676 at ¶ 147.

safety organizations; (4) address "lock-in" problem in way that substantially reduces or eliminates problem; and (5) benefits to public safety outweigh any additional costs.[3]

The Commission explicitly encouraged efforts to expand the application of "improved 911 calling methods to digital services, such as digital cellular and PCS."[4] The Commission provided that manufacturers or carriers wishing to incorporate new or modified 911 call processing modes should submit such requests to the Wireless Telecommunications Bureau, and it delegated to the Bureau authority to act on such requests.[5]

Nokia's proposed method to include the digital modes for 911 calls complies with all of the Commission's principles set out above and demonstrably furthers the Commission's stated goals to improve wireless 911 reliability, increase the probability that 911 calls will be transmitted efficiently and successfully to public safety agencies, and help ensure that wireless service will be maintained for the duration of the 911 calls.[6] As explained below and in the attachment hereto, for multi-mode handsets Nokia's analog/digital solution is substantially superior to any of the three 911 analog-only call processing modes approved by the Commission in the *Second Report and Order*.

Due to the impending February 13, 2000 deadline for compliance with the requirements of the *Second Report and Order*, Nokia requests expeditious consideration of this request. Nokia's internal production processes require us to implement the new methodology within the next several weeks to meet the February 13 deadline. Without such approval, the public will be harmed by not having available all possible methods to complete an emergency 911 call that multi-mode handsets are capable of providing.

Background

On August 19, 1999, Leo Fitzsimon, director of Regulatory and Industry Affairs for Nokia, and Sharad Huilgol, Nokia Product Marketing Manager, met with Marty Liebman and Won Kim of the Wireless Telecommunications Bureau (WTB) to discuss Nokia's proposed call completion methodology for its dual mode CDMA products. Following up on September 30, 1999, Mr. Fitzsimon and Mr. Huilgol met with Kris

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[3] Second Report and Order at ¶¶ 28-29

[4] *Id.* at ¶ 90

[5] *Id.* at ¶ 88, 97

[6] *Id.* at ¶¶ 2, 13.

Monteith, Nancy Boocker, Ron Netro, Dan Grosh, Mr. Liebman and Ms. Kim. At this meeting, Nokia presented a technical document that describes its proposed method in detail. At the conclusion of this meeting, WTB staff advised us to submit our proposal formally to the Bureau to request approval.

Brief Description of Nokia's Call Completion Method

Nokia's proposed call completion method is based on the Automatic A/B Roaming – Intelligent Retry method described in the *Second Report and Order*, but goes further to attempt completion of 911 calls on **all** systems on which a handset is capable of operating and all modes -- both analog and digital. This method will result in a greater percentage of completed wireless 911 calls, furthering the express goals of the Commission.[7]

Nokia's solution accomplishes this by using the system selection algorithms present in every phone. When a multi-mode or multi-band handset is manufactured, it is programmed with the capability to access all systems on which it is capable of operation. For non-emergency calls, this algorithm can be amended by the carrier to determine the order of systems a handset will attempt to operate on. The carrier may block the use of some systems for these non-emergency calls.

When 911 is dialed, implementing Nokia's proposed method will activate all modes and bands. The handset will make an initial attempt to complete the call using the presently acquired system being used for non-emergency calls, whether analog or digital. If the call cannot be completed within the time specified by the system operator (in digital systems this generally is no more than 10 seconds), the handset will attempt to complete the call on the next system, according to the carrier's preferred system selection list. If the handset fails to complete the call on any of the preferred systems specified by the operator, it then will override all negative blocks and attempt to complete the call on each and every additional system on which it is capable of operating regardless of the carrier's programmed preference. During this process, the handset will provide the caller with feedback regarding the status of the call until the call is completed.

It should be noted the employing the carrier-specified preferred roaming list may result in an analog system selection attempt being followed by one or more digital selections, and therefore the remaining analog selection attempt may not be reached for more than 17 seconds. The phone would, however, be trying to complete the call on another system. We believe that the intent of the rules is prevent blockage and ensure getting to another system for call completion, which is accomplished in this example by moving to a digital system which may, in fact, have more capacity to

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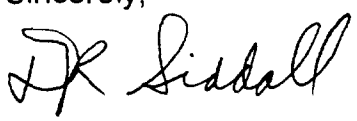
[7] *See Id.* at ¶¶ 1-4.

complete the call than the analog option. Also, while most such call attempts are limited to 10 seconds or less, a carrier may adjust the call attempt time to between 1 and 30 seconds. It has been Nokia's experience that this time is set at less than 15 second in the vast majority of cases.

In the Commission's proceeding, public safety organizations cited market studies projecting that about 37 million new dual-mode, digital-preferred handsets are expected to be sold in the next three years, compared to only 10 million analog-only handsets.[8] By utilizing **all** of the capabilities of multi-mode handsets, both analog and digital, all wireless systems capable of completing the call will be tried. This method will increase the number of calls that are completed, providing a significant benefit to the public and to public safety organizations that respond to emergency calls. This result furthers the expressed goals of the Commission to maximize the potential for completing wireless 911 calls, and is consistent with the its expressed desire to address both the digital and analog modes of dual mode handsets.[9]

Nokia is eager to address any concerns you may have with its request and strongly believes that its prompt grant will serve the public interest by increasing the rapid completion of wireless 911 calls using its products. If you have any questions or wish additional information, please do not hesitate to contact Leo Fitzsimon, Nokia's director of Regulatory and Industry Affairs at (202) 887-5330, or David Siddall at (202)371-6326.

Sincerely,



David Siddall
Counsel to Nokia, Inc.

Enclosure (1)

cc: Kris Monteith
Nancy Boocker
Dan Grosh
Ron Netro
Marty Liebman
Won Kim

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[8] *Id.* at ¶ 85.

[9] *See Id.* at ¶ 35 and n.47.

NOKIA

E911 CALL PROCEDURES

September 30, 1999

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1.0 Background

- FCC Adopts Call Completion Second Report & Order on May 13, 1999.
- Seeks to improve the ability of analog cellular phone users to successfully complete wireless 911 calls.
- Requires that cellular phones operating in analog mode include a separate capability for processing 911 calls that permits those calls to be handled, where necessary, by either cellular carrier in the area.
- Rules apply to analog and multi-mode phones when operating in analog mode.
- R&O sets guidelines for 911 call completion methods that satisfy the rule, and approves three methods that have been proposed in the record:
  - Automatic A/B Roaming-Intelligent Retry (IR);
  - Adequate/Strongest Signal;
  - Selective Retry.
- FCC notes that it does not intend to limit the development and improvement of 911 call completion modes as long as they meet five basic principles:
- improve call completion rate so far as practicable;
- route 911 calls, where possible, to the preferred carrier;
- no disruption of overall operation of 911 service;
- must address lock-in problem; and
- Benefits of calling mode to public safety should outweigh costs.
- In order to foster policy of technological and competitive neutrality and to encourage the development of new and improved methods of making wireless technology enhance public safety, FCC invites parties to submit new methods for approval by the WTB.
- FCC explicitly encouraged efforts to expand the application of improved 911 calling methods to "digital services, such as digital cellular and PCS."

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2.0 Nokia Proposal

- Nokia's CDMA product line has developed a mechanism to extend the FCC's call completion mandate.
- Nokia's solution addresses CDMA digital and multi-mode operation.
- Solution is based along the lines of the Automatic A/B Roaming - Intelligent Retry Option, but goes further.
- In R&O, FCC seemed to indicate its preference for a solution that is adaptable to digital and multi-mode operations. (See R&O, para 35 and n. 47)
- If an emergency call is detected the mobile will initially try to complete the call on the presently acquired system.
- The mobile tries to complete the call on the presently acquired system. If the current system is Analog and access attempt fails it will try three times on this system (will meet all timings as specified in the R&O), then it will try to complete the call on the next system as per the system selection until the call is completed.
- The handset will try all systems on which it is capable of operating (the handset will override any user setting ('local' programming) e.g. Analog Only or Digital only, negative SID/NIDs etc..) and seeks other systems in the event it is unable to complete the call on the present system. e.g. Dual mode handset (800MHz Digital and Analog) will try Digital A, Digital B, Analog A and Analog B. The order will be determined by the System Selection Algorithm (ref to Sec. 3 for details).
- The call attempt will be aborted under the following conditions:

  ⇒ terminated by the user.

  ⇒ Handset loses power.
- After an emergency call is released or dropped, the mobile will attempt to acquire the same system first. If the mobile is unable to acquire the same system it was on, it will attempt to acquire the next available system as per system selection. After a system is acquired, it will not rescan to acquire another system until power cycled.
- The Handset will provide feedback to the user on the status of the call.

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3.0 System Selection

- Nokia CDMA products support two System Selection Algorithms.
  - Enhanced Roaming System Selection (ER).
  - System Selection with Preferred Roaming (SSPR)
- If the Preferred Roaming List (PRL) is programmed for the active NAM then the associated SSPR algorithm is used. Otherwise, the mobile shall use the Enhanced Roaming System Selection.

3.1 Enhanced Roaming System Selection (ER)

- This can be used in Cellular mode only. It does not apply to CDMA PCS mode.
- The user can select from different System Selections.
  - Automatic - The mobile tries to acquire the system (digital preferred)
  - SemiAuto A – The mobile tries to acquire A-side system first.
  - SemiAuto B - The mobile tries to acquire B-side system first.
  - Other options may be specified by the carrier

3.2 System Selection for Preferred Roaming (SSPR)

- The System Selection for preferred roaming uses the procedures described in TIA/EIA IS683-A or similar document for implementation (ref to Appendix A for details).
- PRL **cannot** be entered or updated through keypad entry (user cannot modify the PRL)
- All capable systems may not be included in the PRL. Carrier selects systems.

Systems may be tagged as negative.

3.3 Enhancements for E911 Calls

- All the negative systems will be ignored.

All capable systems that are not present in the Preferred Roaming List are included for acquisition for E911 calls

4.0 Nokia Enhancements

- Nokia CDMA product lines has developed a unique method of tracking that determines which of the following systems it is capable of using.
  - Analog A – Dedicated Control Channels 313-333

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- Analog B - Dedicated Control Channels 334-354
- Cellular Digital A - Primary and Secondary Channels (Preferred Set Channels Numbers as defined in TIA/EIA-95B, Section 6.1.1.1)

TIA/EIA 95-B Table 6.1.1.1.1-4.

CDMA Preferred Set of Frequency Assignments for 800 MHz Cellular System (Band Class 0)

System Designator	Preferred Set Channel Numbers
A	283 (Primary) and 691 (Secondary)

- Cellular Digital B - Primary and Secondary Channels (Preferred Set Channels Numbers as defined in TIA/EIA-95B, Section 6.1.1.1)

TIA/EIA 95-B Table 6.1.1.1.1-4.

CDMA Preferred Set of Frequency Assignments for 800 MHz Cellular System (Band Class 0)

System Designator	Preferred Set Channel Numbers
B	384 (Primary) and 777 (Secondary)

- PCS Bands – A, B, C, D, E (Preferred Set Channels Numbers as defined in TIA/EIA-95B, Section 6.1.1.1)

TIA/EIA 95-B Table 6.1.1.1.2-4.

CDMA Preferred Set of Frequency Assignments for1.850 to 1.990 GHz Broadband PCS (Band Class 1)

Block Designator	Preferred Set Channel Numbers
A	25, 50, 75, 100, 125, 150, 175, 200, 225, 250, 275
D	325, 350, 375
B	425, 450, 475, 500, 525, 550, 575, 600, 625, 650, 675
E	725, 750, 775
F	825, 850, 875
C	925, 950, 975, 1000, 1025, 1050, 1075, 1100, 1125, 1150, 1175

- Tracks the Frequency Assignments (Channel Numbers) that are not part of PRL but can be used for the Emergency call.

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[redacted]

- Intelligently determines the order in which the systems need to be accessed after exhausting the preferred systems.

Process:

1. Handset determines that an E911 call is initiated.
2. Handset will try to originate the call on the presently acquired system.
3. If the Handset cannot complete the call on the presently acquired system, it will try to complete the call on other systems as defined in the PRL.
4. If the Handset still cannot complete the E911 call on the preferred systems (system included in the PRL) then the mobile will try to complete the call on the other capable systems that are not defined in the PRL.

5.0 User Feedback

- The mobile will provide continuous feedback to the user on the status of the call.

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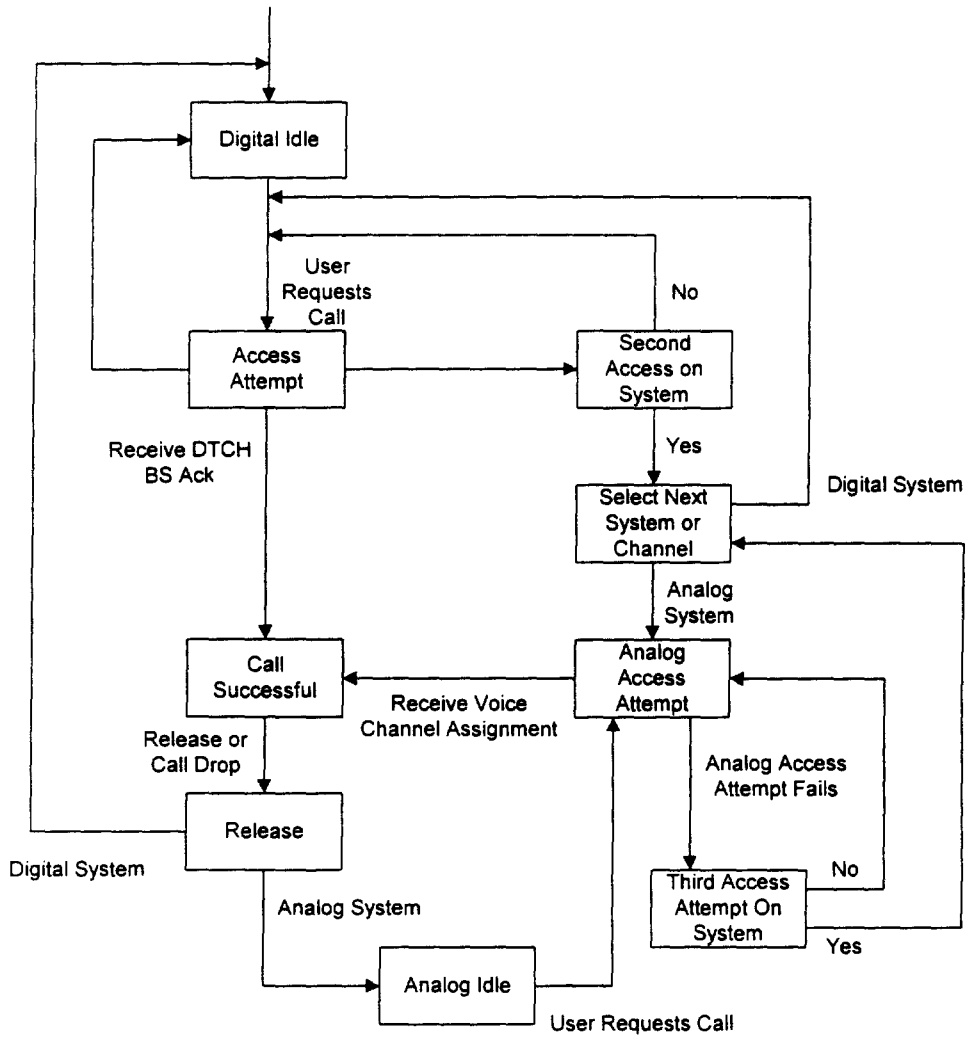

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APPENDIX A

SYSTEM SELECTION USING TIA/EIA IS-683A

Note: These sections have been taken from TIA/EIA 683-A. The same numbering scheme has been retained for convenience.

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1.0 Terms

Activation Code. A user-entered combination of a specified Feature Code (*FC) and defined group of at least two dialed digits (System Selection Code) that specify the user selection of a Band and a Block operated by the selected service provider.

Acquisition Table. A List of records, contains acquisition information tailored for use in acquiring a preferred system.

Base Station. A fixed station used for communicating with mobile stations. Depending upon the context, the term base station may refer to a cell, a sector within a cell, an MSC, an OTAF, or other part of the wireless system.

DEF_ROAM_IND. Default roaming indicator for systems not specified in the preferred roaming list.

GEO. Geographic region indicator (ref to TIA/EIA IS-683A)

Home SID List. A list of Home systems

Home System. The cellular system in which the mobile station subscribes for service.

Mobile Station. A station, fixed or mobile, which serves as the end user's wireless communication link with the base station. Mobile stations include portable units (e.g., hand-held personal units) and units installed in vehicles.

Mobile Station Originated Call. A call originating from a mobile station.

Mobile Station Terminated Call. A call received by a mobile station (not to be confused with a disconnect or call release).

NAM. See Number Assignment Module.

Negative SID List. A list of Negative systems

Network. A network is a subset of a wireless system, such as an area-wide wireless network, a private group of base stations, or a group of base stations set up to handle a special requirement. A network can be as small or as large as needed, as long as it is fully contained within a system. See also System.

Network Identification (NID). A number that uniquely identifies a network within a wireless system. See also System Identification.

NID. See Network Identification.

Number Assignment Module (NAM). A set of MIN/IMSI-related parameters stored in the mobile station.

OTASP. See Over-the-Air Service Provisioning.

Over-the-Air Service Provisioning (OTASP). A process of provisioning mobile station operational parameters over the air interface.

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PREF_NEG. Negative System Indicator

PREF_ONLY. This field indicates whether the mobile is allowed to use any system that is not specified in the system table.

Preferred SID List. A list of Preferred systems

Recent Channel List. A list of channels on which mobile previously found service.

Release. A process that the mobile station and base station use to inform each other of call disconnect.

Roamer. A mobile station operating in a wireless system (or network) other than the one from which service was subscribed.

SSPR. See System Selection for Preferred Roaming.

System. A system is a wireless telephone service that covers a geographic area such as a city, metropolitan region, county, or group of counties. See also Network.

System Identification (SID). A number uniquely identifying a wireless system.

System Selection Code. A part of the Activation Code that specifies the user selection of a Band and a Block operated by the selected service provider.

System Selection for Preferred Roaming (SSPR). A feature that enhances the mobile station system acquisition process based on the set of additional parameters stored in the mobile station in the form of a Preferred Roaming List.

System Table. A list of system records. (ref to TIA/EIA IS-683A)

Traffic Channel. A communication path between a mobile station and a base station used for user and signaling traffic. The term Traffic Channel implies a Forward Traffic Channel and Reverse Traffic Channel pair.

UI. User Interface.

Preferred Roaming List. Contains information to assist the mobile station system selection and acquisition process. Retained by the mobile station when the power is turned off.

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2.0 SSPR Description (As defined in IS-683-A)

The PRL indicates on which systems the mobile station should use (preferred systems). It also indicates which systems should not be used by the mobile station (negative systems). In addition to indicating which systems are preferred or negative, the PRL has information that can reduce the acquisition time. However, for optimum performance of the SSPR feature, appropriate structuring of the roaming list is required.

The PRL consists of two tables: The acquisition table and the system table

Acquisition Table: The acquisition table contains the list of acquisition records that provide the band and frequencies information that the mobile station is to use when attempting to acquire the system. These records are to be listed in priority order (highest priority first) according to the desired mobile station system selection scanning priorities.

System Table: The system table contains list of system records. Each record identifies a system by its SID and NID. For each record, there is an indicator of whether the system is preferred or negative, the roaming status that should be indicated by the mobile station, the relative priority of the system, and its geographic region. Each record also contains an acquisition index which indicates a record in the acquisition table to be used.

The preferred roaming list has the following variable length format:

Preferred Roaming List Field	Length (bits)
PR_LIST_SIZE	16
PR_LIST_ID	16
PREF_ONLY	1
DEF_ROAM_IND	8
NUM_ACQ_RECS	9
NUM_SYS_RECS	14
ACQ_TABLE	Variable
SYS_TABLE	Variable
RESERVED	0 to 7
PR_LIST_CRC	16

PR_LIST_SIZE - Preferred roaming list size.

This field is set to the total size, in octets, of the preferred roaming list, including the PR_LIST_SIZE and PR_LIST_CRC fields.

PR_LIST_ID - Preferred Roaming List Identification.

The mobile station shall set this field to the value of the Preferred Roaming List Identification assigned for the preferred roaming list (PR_LIST_{s-p}) by the base station.

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PREF_ONLY - Preferred only.

This field is set to '1' if the mobile station is to operate only on systems that are specified in SYS_TABLE with PREF_NEG set to '1'. This field is set to '0' if the mobile station is to operate on systems that are specified in SYS_TABLE with PREF_NEG set to '1' or on systems that are not specified in SYS_TABLE.

DEF_ROAM_IND - Default roaming indication.

This field is set to the roaming indication value the mobile station is to use when operating on systems not specified in SYS_TABLE (see TIA/EIA/TSB58-A).

NUM_ACQ_RECS - Number of acquisition records.

This field is set to the number of acquisition records contained in ACQ_TABLE (see Table 3.5.5.2-1).

NUM_SYS_RECS - Number of system records.

This field is set to the number of system records contained in SYS_TABLE.

ACQ_TABLE - Acquisition Table.

This field contains acquisition records. The number of acquisition records is specified by NUM_ACQ_RECS.

SYS_TABLE - System Table.

This field contains system records. The number of system records is specified by NUM_SYS_RECS.

RESERVED - Reserved bits.

This field is populated with '0' bits as necessary to make the length of the entire preferred roaming list equal to an integer number of octets.

PR_LIST_CRC - CRC for preferred roaming list.

- **Acquisition Record**: An acquisition record contains parameters that the mobile station can use to acquire a system. Which include Acquisition Record type (Cellular Analog, Cellular CDMA (Standard Channels), Cellular CDMA (Custom Channels), Cellular CDMA preferred, PCS CDMA (Using Blocks), PCS CDMA (Using Channels). Each type of acquisition record is tailored for use in acquiring a particular kind of system and other associated information with each acquisition type like Channel Number, Frequency Block, etc..)

- **System Record Format:** A system record contains parameters that the mobile station can use for identifying an acquired system, for determining whether an acquired system is the optimal system on which to operate, and for determining the mobile station's roaming status.

Each system record has the following variable length format:

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System Record Field	Length (bits)
SID	15
NID_INCL	2
NID	0 or 16
PREF_NEG	1
GEO	1
PRI	0 or 1
ACQ_INDEX	9
ROAM_IND	0 or 8

SID - System identification.

This field is set to the SID of the system associated with this record.

The value '000000000000000' denotes a system with any SID (i.e., serves as a SID wildcard) not specifically included elsewhere in SYS_TABLE, provided that the system is found on a channel or in a block specified in the acquisition record corresponding to ACQ_INDEX. Any other value of this field denotes a system with that specific SID found on any channel.

NID_INCL - NID included.

This field is set to the value defined in Table 3.5.5.3-1.

Table 3.5.5.3-1 NID_INCL Values

NID_INCL Value	Parameter Description
'00'	NID not included. Assume NID value '1111111111111111'
'01'	NID included
'10'	NID not included. Assume NID value '0000000000000000'
'11'	Reserved

NID - Network identification.

If the NID_INCL field of this record is equal to '01', this field is included and is set to the NID of the network associated with this record; otherwise, this field is omitted.

The value '1111111111111111' denotes any NID (i.e., serves as a NID wildcard). Not including the NID field is equivalent to including it and setting it to '1111111111111111'.

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The value '0000000000000000' denotes a NID of the public system (see 6.6.5.2 of TIA/EIA-95-B)

PREF_NEG - Preferred/negative system.

This field is set to '1' if the mobile station is allowed to operate on the system associated with this record. This field is set to '0' if the mobile station is not allowed to operate on the system associated with this record.

GEO - Geographical region indicator.

If this is the first system record, this field is set to '0'.

If this is not the first system record, then this field is set as follows: If the system associated with this record is in the same geographical region as the system associated with the previous system record, this field is set to '1'; otherwise, this field is set to '0'.

PRI - Relative priority indicator.

If the PREF_NEG field of this system record is equal to '0', this field is omitted; otherwise, this field is included and is set as follows:

If this is the last system record in the specific geographical region, or if the PREF_NEG field in the next system record is equal to'0', this field is set to '0' and has no meaning.

If the system associated with this system record is more desirable than the system associated with the next system record, this field is set to '1'.

If the system associated with this system record is as desirable as the system associated with the next system record, this field is set to '0'.

ACQ_INDEX - Acquisition record index.

This field is set to the index of the acquisition record that specifies the acquisition parameters for the system associated with this record.

Note: The index of the n^{th} acquisition record is n-1. For example, the index of the first acquisition record in ACQ_TABLE is 0, and the index for the fourth acquisition record is 3.

ROAM_IND - If the PREF_NEG field of this record is equal to '1', this field is included and is set to the roaming indication value (see TIA/EIA/TSB58-A) for the system associated with this record; otherwise, this field is omitted.

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3.0 Example

- Table A 1-1 illustrates the basic structure of the preferred roaming list.

Table A 1-1 Preferred Roaming List

PREF_ONLY	DEF_ROAM_IND	NUM_ACQ_RECS	NUM_SYS_RECS
No	On (steady)	5	12

- Table 1-2 illustrates the acquisition table. The records in the acquisition table are in order of priority (highest priority first) according to desired mobile station system selection scan order.

Table A 1-2 Acquisition Table

ACQ_INDEX	ACQ_TYPE	Description	**Acquisition Parameters**
0	'0110'	PCS CDMA - Using Channels	PCS Channels 100, 125, 150, 175, 200
1	'0101'	PCS CDMA - Using Blocks	PCS Block C
2	'0011'	Cellular CDMA - Custom Channels	Channel Number 1
3	'0010'	Cellular CDMA - Standard Channels	System A, Primary and Secondary CDMA Channel
4	'0001'	Cellular Analog	System B

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- Table 1-3 illustrates the system table. In this table, region changes are denoted by a change in shading.

Table A 1-3 System Table

SID	NID_INCL	PREF_NEG	GEO	PRI	ACQ_INDEX	ROAM_IND
111	0	1	0	1	3 [Cellular CDMA -Standard Channels]	Off
77	0	1	1	0	0 [PCS CDMA - Using Channels]	Off
34	0	1	1	0	3 [Cellular CDMA -Standard Channels]	Flashing
34	0	0	1	N/A	4 [Cellular Analog]	N/A
400	0	1	0	1	3 [Cellular CDMA -Standard Channels]	Off
4	0	1	1	1	0 [PCS CDMA - Using Channels]	On
12	0	1	1	1	2 [Cellular CDMA -Custom Channels]	On
0	0	1	1	0	4 (Cellular Analog)	On
776	0	0	1	N/A	4 [Cellular Analog]	N/A
61	0	1	0	1	2 [Cellular CDMA -Standard Channels]	Off
56	0	1	1	0	1 [PCS CDMA - Using Blocks]	Flashing
16	0	0	1	N/A	4 [Cellular Analog]	N/A

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